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MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA

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ABSTRACT

This study investigated the milk hauling charges, to the first point of delivery, for the producers pooled on the Upper Midwest Marketing Area for May 2001. There were 13,753 producers reported as participating in the May 2001 market pool. The data for hauling charges and milk production were obtained from handlers who had submitted producer payrolls to the Market Administrator's office. Comparisons were made between the producer's milk volume and farm location using averages. For the purposes of this analysis, and unless otherwise specified, the "average" hauling rates and/or charges reflect weighted averages. Major findings and conclusions for the producers evaluated in this study are as follows:

1) The average hauling charge for producers participating on the Upper Midwest Order was 17.1 cents per hundredweight.

2) For the states from which the producer milk was received into this market, California, Idaho, Illinois, Indiana, Iowa, Michigan, Minnesota, Montana, North Dakota, South Dakota and Wisconsin, the average state hauling charge ranged from 7.2 to 54.4 cents per hundredweight.

3) In general, the average hauling rate per hundredweight charged decreased as the farm size and/or milk volume increased. However, hauling distances and competition between handlers were also found to be major factors.

4) Hauling rates were noticeably higher in most counties located outside fluid milk shed areas and in areas located the furthest distance from major Class I fluid markets. The highest average hauling charges were found in perimeter counties such as Howard County in Iowa, Itasca, Kittson, Lake of the Woods, Polk and Roseau counties in Minnesota, and the majority of counties delivering milk from North Dakota. The average hauling charges for each of those counties exceeded 50 cents per hundredweight.

5) Some of the lowest hauling charges were found in the Illinois counties of Boone, De Kalb, Stephenson and Winnebago, the Iowa county of Winneshiek, the Minnesota county of Isanti, the South Dakota county of Marshall and the Wisconsin counties of Clark, Dane, Fond du Lac, Jackson, Marquette, Price, Sauk, Walworth and Wood. The average hauling charges for each of these counties was found to be less than 8 cents per hundredweight.

6) The majority of handlers in the Upper Midwest Order charged producers a flat hauling value regardless of the volume of milk being marketed. When handlers charge a flat rate, the actual hauling charge per hundredweight declines as the producer's milk volume increases. This study found that a specific county's average hauling charge was greatly influenced by its farm composition regarding farm sizes.

7) The data from this study showed producers from three states supplied more than 90% of the total milk pooled on this order. The Wisconsin producers supplied 49%, Minnesota producers supplied 28% and California producers supplied 15% of the order's producer milk.

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I. INTRODUCTION

For May 2001, Upper Midwest Marketing Order bulk milk hauling charges, to the first point of delivery, were examined for more than 13,753 dairy producers whose milk was pooled on the market. This study included a small number of producers whose milk was not pooled because of unusual price relationships and/or performance requirements, or partially pooled on a different Federal order. For feasibility purposes, most of the data pertaining to those producers was simply included in this study.

The hauling charges included in this study consisted of hauling deductions shown on the producer payrolls submitted, by reporting handlers, to this Market Administrator's office. The hauling charges do not necessarily reflect the actual cost of the hauling. In many cases, handlers or cooperatives have subsidized milk hauling costs or absorbed additional hauling costs as operating expenses. This study broke down and categorized the hauling charges based on state, county, and producer size groups.

For this hauling study, the month of May 2001 was chosen because May historically represents a period with high supplies of producer milk and rather minimum Class I demands. The source of all data used for this study, including producer receipts and payroll information, was derived from pooling handler records for May 2001.

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II. AVERAGE MILK HAULING CHARGES - FOR THE MILK PROCUREMENT AREA AND BY STATE

In May of 2001, the weighted average hauling charge for all producer milk pooled on the Upper Midwest market was 17.1 cents per hundredweight. This study revealed that only the States of Illinois and Wisconsin had less than the market's average hauling charge. The average hauling charges for producers located in these two states were 7.2 and 12.9 cents per hundredweight, respectively.

The study revealed that North Dakota had the highest average hauling charge of any state with producer milk pooled on the Upper Midwest Marketing Area. The average hauling rate for dairy producers pooled on the Upper Midwest market for North Dakota was 54.4 cents per hundredweight. (See Table 1.)

Table 1

Average Hauling Charge, by State and for the Marketing Area for May 2001

State	Average Hauling Charge (Cents Per Cwt.)
California	25.2
Idaho	26.3
Illinois	7.2
Indiana	*
Iowa	29.0
Michigan	18.3
Minnesota	19.4
Montana	*
North Dakota	54.4
South Dakota	27.7
Wisconsin	12.9
Simple Average	**24.5**
Weighted Market Average	**17.1**

* Restricted

.73 = 88.4 cents/cwt

III. AVERAGE PRODUCER MILK DELIVERIES - FOR THE MILK PROCUREMENT AREA AND BY STATE

This study found that the individual producer's milk volume actually becomes an important factor in the producer's average hauling charge on a per hundredweight basis. In May of 2001, the Upper Midwest monthly market average producer milk delivery was 116,000 pounds, or about 3,750 pounds per day. The average producer in the States of Michigan, Minnesota, North Dakota and Wisconsin had less than the market's average producer monthly milk deliveries. The average delivery of milk for producers located in these four states was 76,000, 103,000, 92,000 and 100,000 pounds, respectively. This study also revealed that the States of California, Idaho and Iowa had by far the highest average producer milk deliveries pooled on the Upper Midwest Marketing Area. The average delivery for these states was 860,000, 653,000 and 365,000 pounds, respectively. The May 2001 average producer milk volume, by state, is detailed in Table 2.

Table 2

Average Producer Delivery, by State and for the Marketing Area for May 2001

State	Producer Average Monthly Delivery (Pounds in Thousands)
California	860
Idaho	653
Illinois	120
Indiana	*
Iowa	365
Michigan	76
Minnesota	103
Montana	*
North Dakota	92
South Dakota	195
Wisconsin	100
Simple Average	**285**
Weighted Market Average	**116**
Median	**68**

* Restricted

As shown above, this study revealed that the Upper Midwest market median producer milk delivery was 68,000 pounds. The median, in this case, represents the middle volume of milk marketed by producers in the distribution of all dairy producers with milk pooled on the market. In this scenario, the median falls roughly 48,000 pounds below the market average of 116,000 pounds. In this case, the median reflects the fact that the milk production of a large number of small farmers is offset by the production of only a few large farms. About 50 percent of the dairy producers produce less than 68,000 pounds of milk.

IV. PERCENTAGE OF PRODUCER MILK DELIVERIES BY STATE

In May 2001, dairy producers from three states delivered the majority of the milk pooled on the Upper Midwest Order. The State of Wisconsin producers delivered the most milk of any of the states, by supplying 49 percent of the total milk volume pooled. Producers from the States of Minnesota and California were second and third in milk volume supplied to the order, respectively. The volume of producer milk delivered by any of the remaining states (individually) was less than 2.5 percent. (See Table 3 and Chart 1)

Table 3

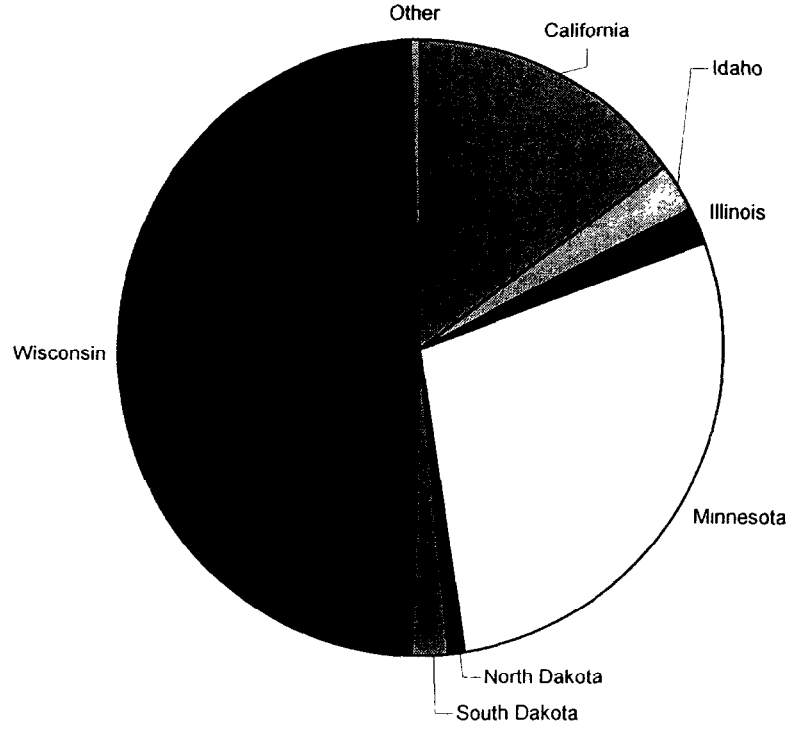
Producer Milk Deliveries, by State and for the Marketing Area for May 2001

State	Producer Deliveries (Market Share)
California	15.0%
Idaho	2.4%
Illinois	2.1%
Indiana	*
Iowa	0.6%
Michigan	(less than 0.1%)
Minnesota	28.1%
Montana	*
North Dakota	0.8%
South Dakota	1.9%
Wisconsin	49.0%

* Restricted

Chart 1

Percentage of Producer Milk Deliveries, by State for May 2001



Other = Indiana, Iowa, Michigan and Montana.

V. PERCENT OF PRODUCERS ON THE MARKET BY STATE

In this study, producer numbers were used to calculate the average producer farm size, regarding milk volumes, and the total market share of producers for each state. In May of 2001, there were 13,753 producers pooled on the Upper Midwest Marketing Order. The State of Wisconsin had the most producers of any state, with 59.6 percent of the total producers delivering to the market. The State of Minnesota had the second highest number of producers with 33.2 percent. The study found that each of the remaining states had only a minimum number or percentage of producers on the market. (See Table 4 and Chart 2.)

Table 4

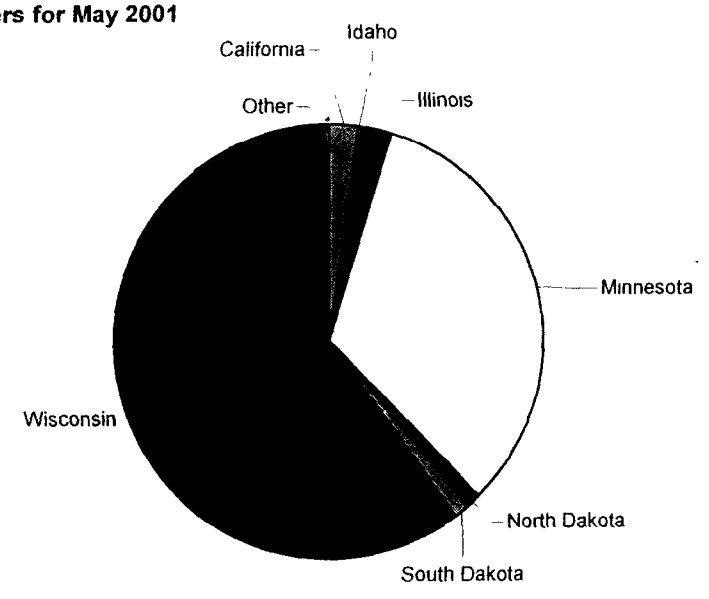
Percent of Producers Making Deliveries, by State and for the Marketing Area for May 2001

State	Producers Making Deliveries (Market Share)
California	2.1%
Idaho	0.4%
Illinois	2.1%
Indiana	*
Iowa	0.2%
Michigan	(less than 0.1%)
Minnesota	33.2%
Montana	*
North Dakota	1.1%
South Dakota	1.1%
Wisconsin	59.6%

* Restricted

Chart 2

Percent of Producers for May 2001



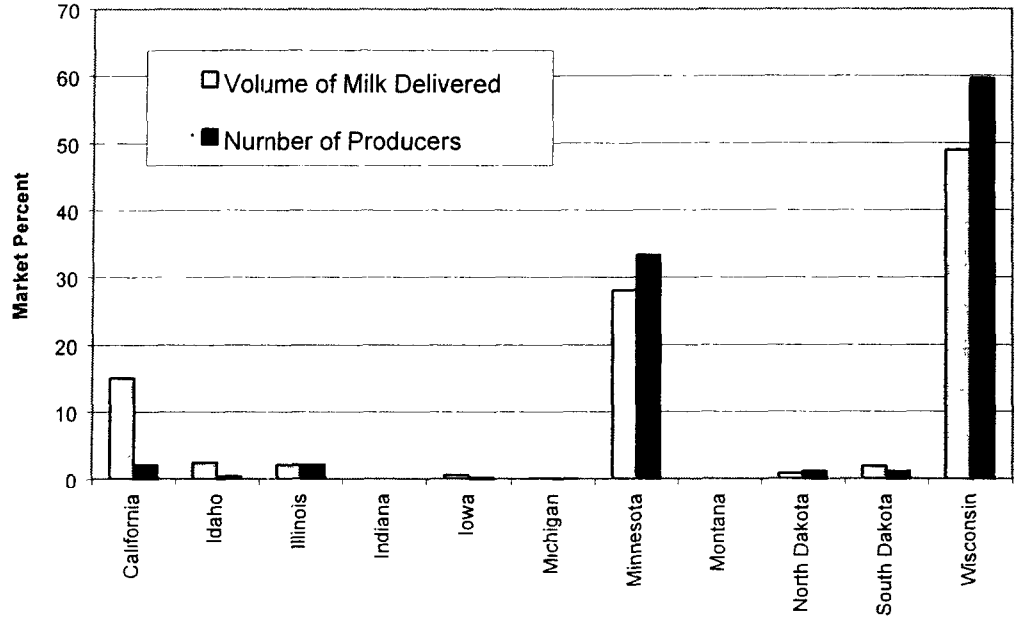
Other = Indiana, Iowa, Michigan and Montana.

VI. COMPARISON OF THE NUMBER OF PRODUCERS MAKING MILK DELIVERIES VERSUS TOTAL MILK DELIVERIES ON THE MARKET BY STATE

The following chart compares for each of the eleven states with producer milk pooled on the market, the volume percentage of producer milk deliveries with the percentage of producers pooled on the market, for May of 2001. The data in this chart shows that the percentage of producer milk deliveries from the State of California drastically exceeds California's percentage of producers pooled on the market. This is the result of a strong representation of much larger than market average dairy producers pooled from the State of California. The average producer milk volume for producers located in the State of California was 860,000 pounds. Idaho and South Dakota also had a strong percentage of these larger than market average dairy producers pooled on the market. This representation of larger than average producer sizes is demonstrated in the chart below. The very opposite is observed when examining the data representing the States of Minnesota and Wisconsin. For each of these two states, the percentage of total producers pooled noticeably exceeds the percentage of producer milk deliveries. The study concludes that these two states had below market average producer sizes.

Chart 3

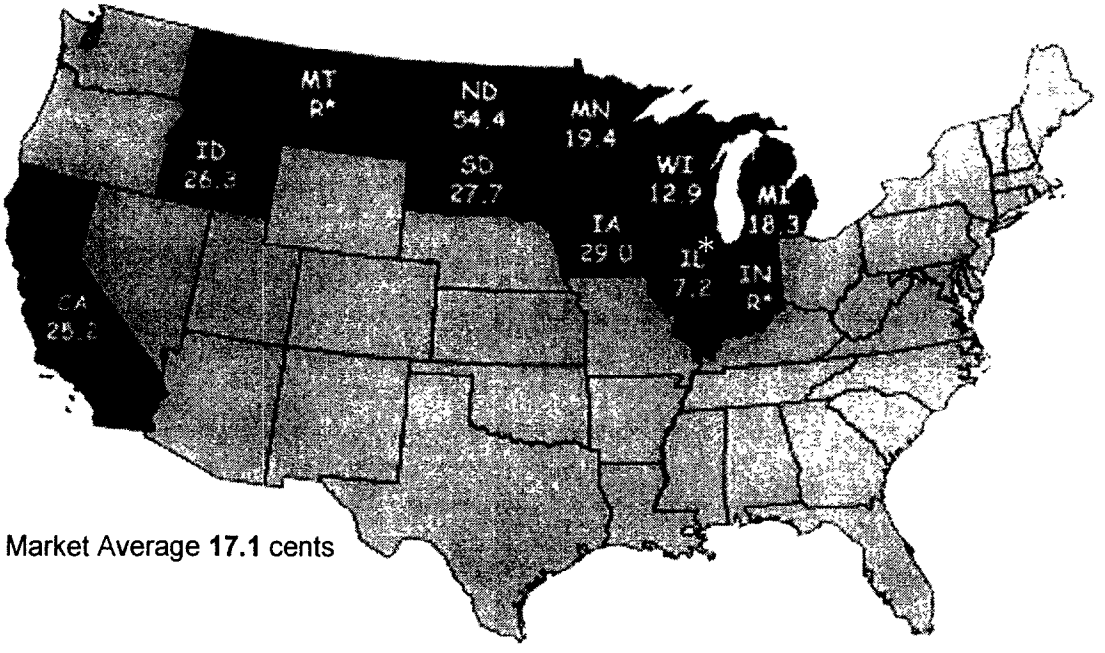
Producer Numbers versus Milk Volumes for May 2001



The detail in Figure 1 geographically shows the average hauling charge for each state with producer milk pooled on the Upper Midwest Marketing Area during May of 2001. When examining the average hauling charges by state, the rate per hundredweight has a slight tendency to increase as the producer's distance from the region's largest populated areas increase. The small star on the map represents the Chicago metro area. This area has the largest Class I fluid milk market in the Upper Midwest Marketing Area.

Figure 1

Upper Midwest Marketing Area
Average Hauling Charges, by State (cents per cwt.)
May 2001



Market Average **17.1** cents

* Restricted

When further examining the average hauling charges, in cents per hundredweight and by state, the study finds that the producers located in Illinois had the lowest average hauling charge of any of the states with producer milk pooled on the market. The average hauling charged to producers located in Illinois was only 7.2 cents per hundredweight of milk marketed and 9.9 cents below the market's average. The study found that the Illinois

producers were all located in the northern portion of the state, and that many of these producers were in close proximity of large fluid milk markets (Chicago and Rockford areas).

The producers located in North Dakota, on the other hand, had the highest average hauling charge of any state with producer milk pooled on the market. The average hauling charge to producers located in North Dakota was 54.4 cents per hundredweight of milk marketed and was 37.3 cents above the market average. The study found that the North Dakota producers pooled on the market were physically spread-out and/or were located in 33 individual North Dakota counties. The study acknowledges that in many cases the North Dakota producer milk was moved long distances in order to be marketed in the nearest dairy manufacturing plant. The data analyzed in this study indicates that the North Dakota average hauling charges are strongly influenced by the longer hauling distances and by the lack of local competing dairy manufacturing operations or handlers. The study also acknowledges that most of the North Dakota's producers are distantly located from major Class I markets. The study finds that the actual cost of hauling the longer distances and a simple lack of market competition explain the higher hauling rates being charged in the State of North Dakota.

VII. AVERAGE MILK HAULING CHARGE BY SIZE RANGE OF PRODUCER DELIVERY

The data shown in Table 5 indicates that there are several other factors that contribute to fluctuating hauling charges. The study simply acknowledges that the aforementioned relationship between farm location and distances to competing dairy plant manufacturing operations simply do not explain all of the variation in average hauling charges. This study found that even though a specific dairy producer may be located a very long distance from the Upper Midwest market's largest fluid milk disposition area; it does not necessarily mean that this specific producer will pay the market's highest rate per hundredweight for hauling. Such is the situation when examining the average hauling charges to pooled producers located in the States of California or Idaho. This study recognizes that other factors exist, including the fact that a dairy producer's herd size or milk volume usually influences the producer's cost of hauling.

The data in Table 5 breaks down the market's dairy producers into eight evenly-proportioned producer milk volume categories or size ranges. The table compares the weighted average milk hauling charges for these separate size ranges for the eight highest producing states involved in the market's pool for May 2001. The eight individual size ranges each represent approximately 12.5 percent of the total milk on the entire Upper Midwest market pool. The study finds that Table 5 shows a strong indication that as the producer's milk volume tends to increase, the average hauling charge per hundredweight has the tendency to decrease.

Table 5

Average Hauling Charge, by Size Range of Monthly Producer Deliveries, by State, for May 2001

Size Range		Average Hauling Charge for May 2001								
Equal to or More than	Less Than	CA	ID	IL	IA	MN	ND	SD	WI	Market Average
(Pounds)		(Cents Per Cwt.)								
-	60,000	42.8	32 2	12 4	36.1	32.9	72.5	47 2	22.2	25.9
60,000	90,000	43.1	44 0	10.7	12 5	27 3	67.7	49 0	17.0	21.0
90,000	125,000	41.9	43 1	7.5	13.5	21 9	57.0	38.5	14.7	17.5
125,000	190,000	38.3	40.3	4.3	R	17.6	59.0	35.0	12.9	15.5
190,000	370,000	33.5	38.0	6 5	R	13 1	51 1	32 5	9.6	12 9
370,000	850,000	29 0	32 6	R	R	10.6	67.2	R	7.0	12.8
850,000	2,000,000	26 0	30 8	R	R	8.7	16.2	R	5.3	14.4
2,000,000	-	R	22 2	R	R	4.7	R	R	5.9	17.7
Average		**25.2**	**26.3**	**7.2**	**29.0**	**19.4**	**54.4**	**27.7**	**12.9**	**17.1**

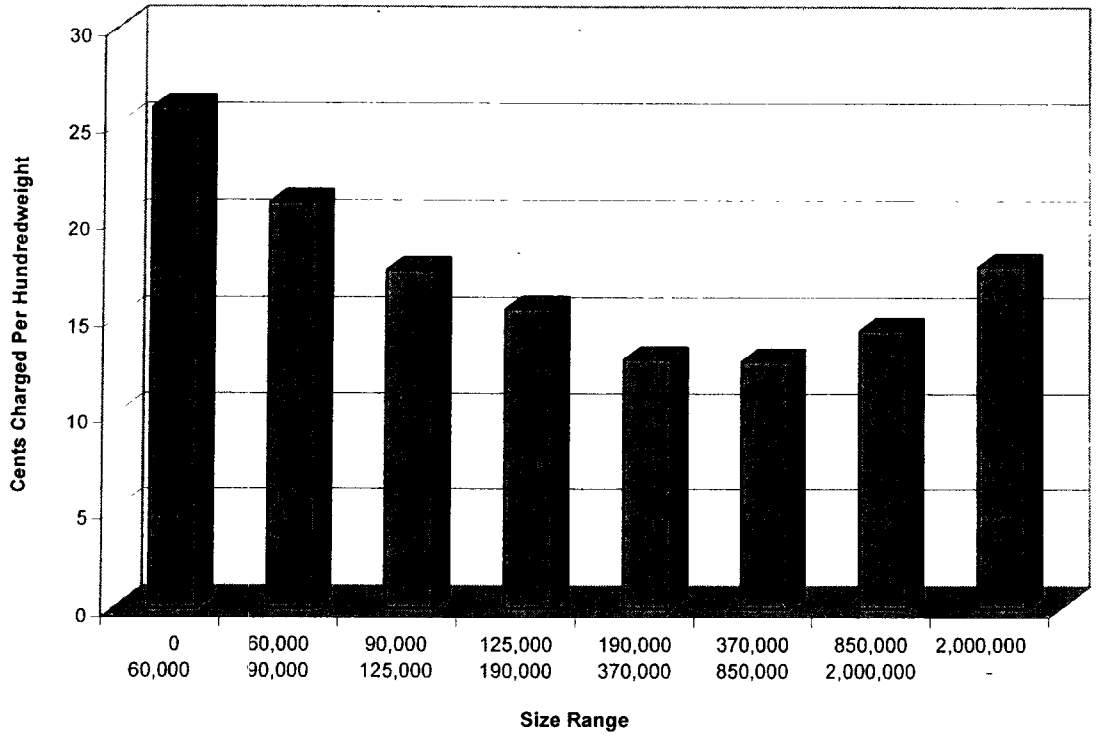
R - Restricted.

The study acknowledges that there are several major factors causing differences in hauling charges between individual producer sizes. The most obvious factor responsible for influencing the producer's hauling rate per hundredweight, by herd size range, is that most Upper Midwest handlers charge a fixed hauling dollar value to dairy producers, regardless of volume of milk the particular producer is marketing. Therefore, as one of these producer's production increases, his or her hauling charge per hundredweight will automatically decrease. This increase/decrease situation is noticeably apparent when examining most of the data shown in Table 5. Further, this study finds that nearly 80

percent of the producer milk is procured from the States of Minnesota and Wisconsin. The study also finds that these two states possess larger amounts or percentages of smaller to middle market size dairy producers. Many of these producers are generally located within the vicinity of multiple milk processors. Therefore, these producers will apparently pay for shorter hauling distances, and therefore their hauling charges on a per hundredweight basis is going to be less than similar size producers located in other parts of the market's procurement area. The detail in Chart 4 shows the average hauling charge, by size range, for all producer milk pooled on the market, for May 2001.

Chart 4

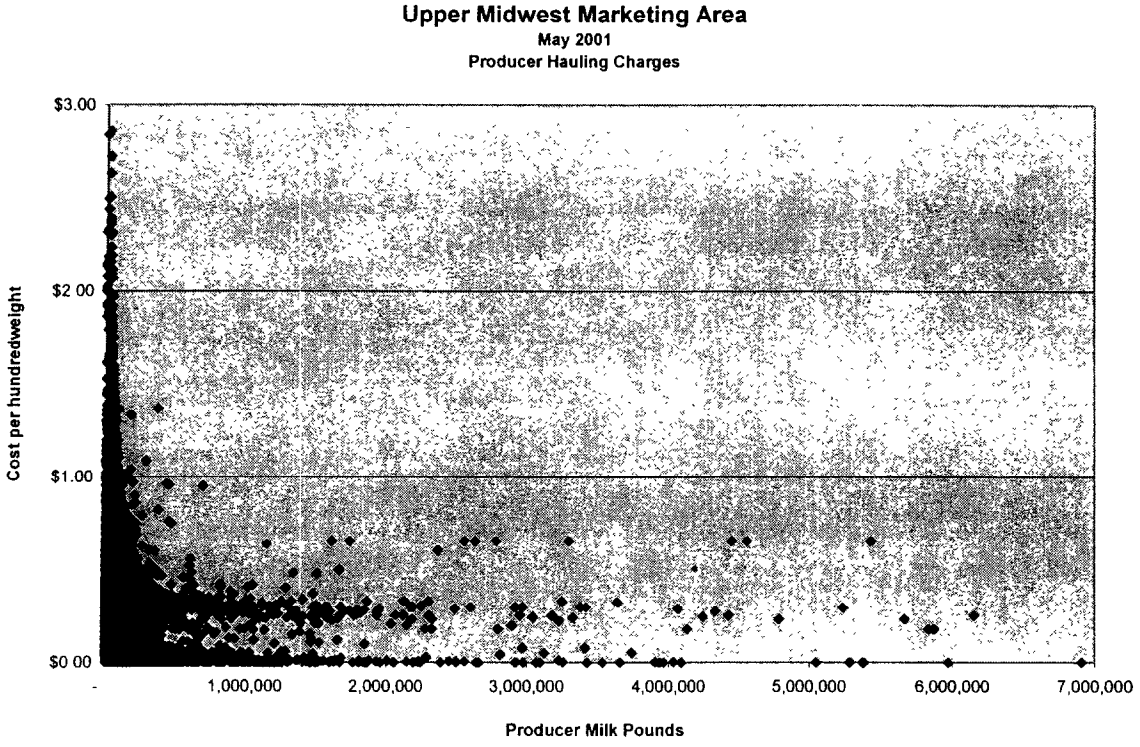
Upper Midwest Marketing Area
Average Hauling Charge, by Size Range, of Monthly Producer Deliveries for May 2001



The detail for each state, size categories, and the influence of the aforementioned volume factor is reflected in the producer data plotted on the chart below. In Chart 5, all producers

pooled on the Upper Midwest milk marketing order during May 2001 have been plotted. This study found that 95 percent of the dairy producers were charged less than 75 cents per hundredweight for their hauling charges and had marketed less than 1 million pounds of milk.

Chart 5



As mentioned above, one factor that contributes to varying hauling rate charges is the dairy producer's location to the market, or those areas possessing strong procurement competition among fluid dairy processors and/or cheese manufacturing plants. This factor is quite noticeable in the milk shed areas found in Minnesota and Wisconsin, and also in distant states such as California and Idaho. The study finds that lower hauling charges in these areas reflect strong procurement competition accompanied by shorter hauling distances between dairy farm operations and dairy manufacturing plants.